

## **REMARKS**

Claims 1-31 are all the claims pending in the application.

### **I. Claim Rejections under 35 U.S.C. § 102**

The Examiner has rejected claims 17, 22, 24, 25, 29 and 31 under 35 U.S.C. § 102(b) as being anticipated by Kawada et al. (JP 06-028672). Applicants respectfully traverse this rejection on the following basis.

Claim 17 recites that the amount of change in refractive index is less than or equal to 0.02. Applicants respectfully submit that Kawada fails to disclose or suggest at least this feature of claim 17.

In the Office Action, the Examiner points to paragraph [0013] of Kawada as allegedly disclosing that the amount of change in refractive index is less than 0.02. In the previous response, Applicants noted that the disclosure in Kawada that is being relied on by the Examiner sets forth that “a change in refractive index occurs in a range of  $1\text{mm}^3$  around a light-condensing spot.” The Examiner responded in the present Office Action by asserting that the original Japanese document for Kawada sets forth that “a change in refractive index occurs in a range of  $1\mu\text{m}^3$  around a light-condensing spot.”

Regardless of whether Kawada discloses that the change in refractive index occurs in a range of  $1\text{mm}^3$  or  $1\mu\text{m}^3$  around the light-condensing spot, Applicants maintain that such disclosure does not correspond to an amount of change in refractive index being less than or equal to 0.02, as recited in claim 17.

In this regard, Applicants note that the Examiner asserted in the Office Action that, assuming *arguendo*, that Kawada does teach that the change in refractive index occurs in a range of  $1\text{mm}^3$  around a light-condensing spot, that Kawada still anticipates the claimed feature of the “amount of change of refractive index being less than or equal to 0.02” because  $1\text{mm}^3$  is actually  $1 \times 10^{-3}$  or 0.001, which is less than 0.02 (see Office Action at page 11). Applicants respectfully submit that the Examiner’s position is incorrect.

In particular, Applicants note the Examiner is mistaken in stating that  $1\text{mm}^3$  is equal to  $1 \times 10^{-3}$  or 0.001. Applicants respectfully point out to the Examiner that  $1\text{mm}^3$  is a volume measurement, i.e., a cubic millimeter, and in no way whatsoever is equal to  $1 \times 10^{-3}$ . In other words, while  $1 \times 10^{-3}\text{m}$  is equal to 1mm or .001m, Applicants note that a cubic millimeter, i.e.,  $1\text{mm}^3$ , is not equal to .001, as indicated by the Examiner in the Office Action.

Accordingly, regardless of whether Kawada indicates that a change in refractive index occurs in a range of  $1\text{mm}^3$  or  $1\mu\text{m}^3$  around the light-condensing spot, Applicants note that such disclosure indicates that the change in refractive index occurs in a particular range around the light condensing spot, the range being a volume measurement (i.e., one cubic millimeter).

Thus, Applicants submit that while Kawada discloses that a change in refractive index occurs in a particular range (one cubic millimeter) around a light-condensing spot, such disclosure clearly does not correspond to the amount of change in refractive index being less than or equal to 0.02. In other words, in Kawada, the change in refractive index occurs in a particular range (one cubic millimeter) around the light condensing spot, but the amount of change in refractive index is not disclosed as being less than or equal to 0.02. Moreover, Applicants note

that refractive index is generally expressed without units (i.e., no dimensions), whereas  $1\text{mm}^3$  or  $1\mu\text{m}^3$  clearly includes a unit measurement.

In view of the foregoing, Applicants respectfully submit that Kawada does not disclose, suggest or otherwise render obvious that the amount of change in refractive index is less than or equal to 0.02, as recited in claim 17. Therefore, Applicants submit that claim 17 is patentable over Kawada, an indication of which is kindly requested.

Regarding claims 22, 24, 25, 29 and 31, Applicants note that these claims depend from claim 17 and are therefore considered patentable at least by virtue of their dependency.

## **II. Claim Rejections under 35 U.S.C. § 103(a)**

A. The Examiner has rejected claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Kawada et al.

Claim 18 depends from claim 17. As noted above, Kawada fails to disclose, suggest or otherwise render obvious all of the features recited in claim 17. Accordingly, Applicants respectfully submit that claim 18 is patentable at least by virtue of its dependency.

B. The Examiner has rejected claims 19-21 under 35 U.S.C. § 103(a) as being unpatentable over Kawada et al. in view of Takahashi (U.S. 5,748,601).

Claims 19-21 depend from claim 17. Applicants respectfully submit that Takahashi fails to cure the deficiencies of Kawada, as discussed above, with respect to claim 17. Accordingly, Applicants respectfully submit that claims 19-21 are patentable at least by virtue of their dependency.

C. The Examiner has rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Kawada et al. in view of Hesselink et al. (U.S. 6,212,148).

Claim 23 depends from claim 17. Applicants respectfully submit that Hesselink fails to cure the deficiencies of Kawada, as discussed above, with respect to claim 17. Accordingly, Applicants respectfully submit that claim 23 is patentable at least by virtue of its dependency.

D. The Examiner has rejected claim 26 under 35 U.S.C. § 103(a) as being unpatentable over Kawada et al. in view of Yamada et al. (U.S. 5,080,947).

Claim 26 depends from claim 17. Applicants respectfully submit that Yamada fails to cure the deficiencies of Kawada, as discussed above, with respect to claim 17. Accordingly, Applicants respectfully submit that claim 26 is patentable at least by virtue of its dependency.

E. The Examiner has rejected claim 27 under 35 U.S.C. § 103(a) as being unpatentable over Kawada et al. in view of Durham (U.S. 5,532,998).

Claim 27 depends from claim 17. Applicants respectfully submit that Durham fails to cure the deficiencies of Kawada, as discussed above, with respect to claim 17. Accordingly, Applicants respectfully submit that claim 27 is patentable at least by virtue of its dependency.

F. The Examiner has rejected claim 28 under 35 U.S.C. § 103(a) as being unpatentable over Kawada et al. in view of Ishii et al. (U.S. 4,125,860).

Claim 28 depends from claim 17. Applicants respectfully submit that Ishii fails to cure the deficiencies of Kawada, as discussed above, with respect to claim 17. Accordingly, Applicants respectfully submit that claim 27 is patentable at least by virtue of its dependency.

### **III. Allowable Subject Matter**

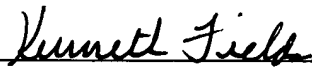
Applicants thank the Examiner for indicating that claims 1-16 and 30 are allowed.

### **IV. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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